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**1. (Amended)** In a liquid artificial nail composition comprised of one or more addition-polymerizable, ethylenically unsaturated monomers, which, when applied to the nail polymerize thereon to form an artificial nail structure having a thickness of greater than 10 mils, the improvement wherein the composition also contains a monoethylenically unsaturated vinyl monomer that contains two or more carbonyl groups.

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**25. (Amended)** In a liquid artificial nail composition comprised of one or more ethylenically unsaturated monomers which are esters of acrylic or methacrylic acid and an aliphatic alcohol or ether-alcohol, which composition, when applied to the nail polymerizes thereon to form an artificial nail structure having a thickness of greater than 10 mils, the improvement wherein the composition also contains a monoethylenically unsaturated vinyl monomer that contains two or more carbonyl groups.

#### REMARKS

Claims 1-23 and 25-30 are pending in the application. Claims 1-10, 19-23, and 25 are rejected under 35 USC 102(b). Claims 11-18 and 26-30 are rejected under 35 USC 103(a). In addition, claims 25-30 are objected to, and claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting.

#### The Objection to the Claims

Claims 25-30 are objected to because claim 24 does not exist. The Examiner requests correction.

Applicants add a new claim 24, which depends from claim 23, and specifies that the U.V. absorber is a hydroxyphenyl benzotriazole compound. Support for this change is found on page 16, line 9 of the specification. The Examiner is respectfully requested to reconsider the objection to the claims.

The Rejection Under 35 USC 102(b)

The Examiner rejects claims 1-10, 19-23, and 25 under 35 USC 102(b) as anticipated by Pagano, PCT/WO 97/42930, stating that Pagano teaches a nail composition that comprises a combination of various alkyl methacrylates including methyl and butyl methacrylate, acetoacetoxyethylmethacrylate, and acrylic acids, in combination with plasticizers, solvents, and U.V. absorbers.

Applicants respectfully disagree that these claims are anticipated by Pagano. Claim 1 of the invention is directed to *a liquid artificial nail composition comprised of one or more addition-polymerizable ethylenically unsaturated monomers, the improvement wherein the composition also contains a monoethylenically unsaturated vinyl monomer than contains two or more carbonyl groups.*

First, the above claim is in the Jepson format, which means that the claim preamble is a patentable limitation. Pentec, Inc. vs. Graphic Controls Corp., 776 F.2d 309, 227 USPQ 766, (Fed. Cir. 1985). Thus the claim preamble - *a liquid artificial nail composition comprised of one or more addition-polymerizable ethylenically unsaturated monomers-* must be considered by the Examiner when evaluating patentability. Accordingly, the above claim has the following limitations:

1. Liquid
2. Artificial nail composition
3. Containing one or more addition polymerizable ethylenically unsaturated monomers; and
4. Containing a monoethylenically unsaturated vinyl monomer that contains two or more carbonyl groups.

Applicants pending claim 1 does not read on Pagano. First, Pagano's composition are not artificial nail compositions, so limitation 2 is not found in Pagano. The term "artificial nail composition" is defined in Applicants' specification as a composition which forms an artificial nail directly on the nail surface by coating on the nail a layer of a viscous liquid monomer composition comprised of one or more addition polymerizable ethylenically unsaturated monomers, shaping the material to the desired configuration, then allowing the material to polymerize on the nail surface to yield a hard coating (see Page 1, lines 11-16). Thus, the claimed compositions are those which form an actual polymerized structure that resembles a fingernail when applied to the nail and polymerized. In contrast, Pagano teaches nail enamel compositions, which are liquid enamels painted on the fingernail itself for the purpose of forming a very thin film of color or gloss coating. The film formed is not free standing as an artificial nail would be, nor is it anywhere near as thick as an artificial nail.

Nor is limitation 3 found in Pagano. Artificial nail compositions are characterized by containing ethylenically unsaturated monomers that are not polymerized. This is the second important distinction between Applicants' claim and the teachings of Pagano. In the latter, the terpolymer which is incorporated into the nail enamel compositions is already polymerized

before it is incorporated into the nail enamel. The nail enamel compositions containing the polymerized polymer is applied to the nails and when dry, forms a film thereon. But since the Pagano compositions contain no monomers, no polymerization of monomers occurs when the nail enamel composition is applied to the nail. In contrast, artificial nail compositions contain ethylenically unsaturated monomers, e.g. monomers that are not polymerized. When the composition is applied to the nail, the monomers polymerize on the nail surface itself to yield a hard, sheet-like structure that can be shaped into a fingernail.

 Nor does Pagano teach limitation 4 of Applicants' claim, which requires that the artificial nail composition must contain at least one monoethylenically unsaturated vinyl monomer that contains two or more carbonyl groups. Pagano's nail enamel contains no ethylenically unsaturated monomers. Instead the Pagano terpolymer containing the acetoacetoxyethyl methacrylate is already copolymerized when incorporated into the nail enamel compositions.

One well known type of artificial nail is the type found in dimestores. These nails are purchased in pre-formed shapes and are simply glued onto the nail. The only difference between that type of artificial nail and Applicants' artificial nail composition is that in the latter the composition polymerizes right on the nail surface to form an artificial nail, rather than being prepolymerized in the form of a nail and glued on. This enables better adhesion of the artificial nail to the nail bed, and the nail can be shaped in a more personalized fashion so that it looks natural. The only way that the latter type of artificial nail can occur is if the artificial nail composition is polymerized right on the nail surface, e.g. the ethylenically unsaturated monomer composition is polymerized right on the nail surface.

Opinion

In order to even further distinguish over Pagano, Applicants' have further amended the claims to define the artificial nail composition as one which, when applied to the nail, polymerizes directly on the surface thereof to yield an artificial nail structure having a thickness of greater than 10 mils. Support for these changes is found on page 1, lines 4-5 and page 4, line 16 of the specification. In contrast, the film formed on nails with application of traditional nail enamel ranges from 3 to 5 mils, which is considerably thinner than 10 mils. Further, in traditional nail enamel compositions, the nail enamel composition does not "polymerize" on the nail surface to yield an artificial nail structure.

It is Applicants' position that the amended claims are not anticipated by Pagano for the reasons set forth. The Examiner is respectfully requested to reconsider the rejection of these claims under 35 USC 102(b).

#### The Rejection Under 35 USC 103

Claims 11-18 and 26-30 are rejected under 35 USC 103(a) as unpatentable over Pagano, in view of Beaver, U.S. 5,830,442. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to combine the methods of producing artificial nail structures and compounds of Beaver in the compositions of Pagano, stating that the motivation for such combination is the fact that the two patents teach chemically equivalent compositions with slight variations in the choices of accelerators and excipients and thus provide structural and functional equivalence within the state of the nail art.

Applicants respectfully disagree that Pagano and Beaver teach chemically equivalent compositions, or that these references in combination make the pending claims obvious. As

previously noted. Pagano teaches nail enamel compositions. Nail enamel compositions comprise a film forming polymer, a solvent, and, if desired, other ingredients such as pigments. The composition is applied to the nail. The solvent evaporates, leaving a very thin film of 3 to 5 mils on the nail surface. Beaver teaches artificial nail compositions of the same type as claimed in this invention. Beaver describes how these artificial nail compositions work; namely the composition is applied to the nail and *in situ* polymerized thereon to form a sheet like surface that adheres to the nail bed and can be shaped into the desired nail shape. It is Applicants' position that because a terpolymer having acetoacetoxyethyl methacrylate as one monomer component can be used to make nail enamel compositions (as in Pagano), simply does not make it obvious that acetoacetoxyethyl methacrylate, the monomer, can be used in a Beaver-type nail enamel composition that is polymerized *in situ* right on the nail surface. In addition, the nail enamel compositions of Pagano are sold by Revlon Consumer Products Corporation under the brandname *Top Speed*. Top Speed nail enamel exhibits 3 day wear. The artificial nail compositions of the claimed invention are sold by Creative Nail Design, Inc., subsidiary of Revlon, under the brandname *Retention +*. The *Retention +* artificial nail compositions exhibit 16 week wear. In other words, when the artificial nail composition is applied to the nail and polymerized thereon to yield an artificial nail structure, that artificial nail generally remains on the nail for 16 weeks. On the other hand, there is no way that a nail enamel film applied to the fingernail (as in Pagano) exhibits 16 week wear. Nail enamel simply does not remain on the nail for 16 weeks.

It is most unexpected that wear can be improved so dramatically when the artificial nail compositions contain the multi-carbonyl vinyl containing *monomer* (as opposed to polymer) are

polymerized directly on the nail surface. In contrast, when the terpolymer of Pagano is pre-polymerized and then incorporated into the nail enamel, the nail enamel has good wear, but not nearly the degree of wear achieved when the artificial nail composition is polymerized directly on the nail surface.

It is Applicants' position that the pending claims are patentable over Pagano for the reasons set forth herein.

Double Patenting

Applicants are confused by the section entitled "Double Patenting" which begins on page 4 and contains paragraph numbers 7, 8, and 9, as well as an additional unnumbered paragraph on page 6 of the office action. There are partial lines drawn through the last two sentences of paragraph 7, which Applicants assume means that the following sentence is to be deleted: "Claims 1-10 are rejected under are rejected under 35 USC 103(a) as being unpatentable over Pagano, et al, 5,772,988." There is one diagonal line drawn through entire paragraph 9 on page 5 of the office action, so Applicants' further assume that the Examiner did not mean for Applicants to consider this paragraph in their response. Applicants will respond on this basis.

In paragraph 8, claims 1-10 are rejected under 35 USC 103(a) as being obvious over Pagano. The Examiner notes that Pagano has a common assignee with the instant application, and notes that it constitutes prior art under 35 USC 102(e). The Examiner states that the rejection under 35 USC 103(a) could be overcome by a showing under 37 CAR[sic] 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another", or by a showing of a date of invention for the instant application

of any unclaimed subject matter prior to the effective US filing date of the reference under 37 CAR [sic] 1.131.

For the reasons discussed above, the pending, amended claims are not anticipated by Pagano. Thus, Pagano is not prior art under 35 USC 102(e). Nor are the pending claims obvious over Pagano, for the reasons previously discussed with respect to the 35 USC 103 rejection advanced by the Examiner.

The Examiner is respectfully requested to reconsider the rejection of claims 1-10 under 35 USC 102(e) and 103(a).

In addition, claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of US 5,772,988. The Examiner contends that although the conflicting claims are not identical, they are not patentably distinct from each other because the claims use utilize the same combinations of monomers of methacrylates, acetoacetoxy methacrylates, and acrylic acids in compositions that are suitable for nail use.

Particularly in view of the amendments and arguments presented herein, Applicants respectfully request the Examiner to make clear (A) the differences between the inventions defined by the conflicting claims—a claim in the patent compared to a claim in the application; and (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in the claim in the patent (MPEP 804 B.1, page 800-17). Applicants can then attempt a response to the rejection.

Respectfully Submitted,



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